CLAIMS

1. A measuring device for a biosensor, comprising:

a supporting section for supporting, in a freely detachable manner, a biosensor which comprises an electrode system having a measurement electrode and a counter electrode, and a sample supply pathway having a portion that can be irradiated with light from the outside;

a plurality of connecting terminals electrically connected to said electrode system;

an electric signal measuring circuit for applying a voltage to said electrode system via said connecting terminals and for measuring variations in electric signal of said electrode system via said connecting terminals;

a light source provided in such a position as to be able to irradiate said portion with light;

a light receiving section for receiving light from said portion;

an optical signal measuring circuit for measuring optical variations in said portion via said light receiving section:

a calculating section for performing a calculation of said variations in electric signal and said optical variations; and

a display section for displaying results of said calculation.

said device being capable of measuring a volume ratio between a solid and a liquid contained in a sample by irradiation of said sample supply pathway with light.

- 2. The measuring device for a biosensor in accordance with claim 1, wherein said sample is blood and said volume ratio is a hematocrit value.
- 3. A measuring method of a specific substance, comprising the steps of:
- (a) fixing a biosensor which comprises an electrode system having a measurement electrode and a counter electrode, and a sample supply pathway having a portion that can be irradiated with light from the outside;
- (b) connecting said electrode system of said biosensor to connecting terminals for measurement;
 - (c) supplying said biosensor with a sample;
- (d) turning on a light source to irradiate said portion with light;
- (e) measuring optical variations in said portion via a light receiving section;
- (f) performing a calculation of the measurement
 result in said step (e);
- (g) applying a voltage to said electrode system via said connecting terminals after the lapse of the prescribed time:
- (h) measuring a current flowing in said electrode system via said connecting terminals;

- (i) performing a calculation of the measurementresult in said step (h); and
- (j) measuring a volume ratio between a solid and aliquid in said sample from the measurement result in said step(f) to correct the measurement result in said step (i).
- 4. The measuring method of a specific substance in accordance with claim 3, further comprising a step (k) of detecting the presence of said sample in said sample supply pathway from the measurement result in said step (f).